

In response to the outstanding Office Action, please amend the above-identified application as follows:

IN THE CLAIMS

Please cancel claims 8-16.

Please amend the claims as follows:

A' 1. (Amended) An apparatus comprising:
2 a first reaction chamber;
3 a gas source coupled to the first reaction chamber to supply
4 a nitrogen gas to the first reaction chamber [comprising
5 constituents adapted to react with a substrate in a process step];
6 an excitation energy source coupled to the first reaction
7 chamber to generate a nitrogen plasma comprising ions and radicals
8 from the nitrogen gas; and
9 a second reaction chamber adapted to house a substrate at a
10 site in the second reaction chamber,
11 wherein the first reaction chamber is coupled to the second
12 reaction chamber and separated from the substrate site by a
13 distance equivalent to the lifetime of the ions at a plasma
14 generation rate such that the radicals react with the substrate in
15 a process conversion step.

1 2. (Amended) The apparatus of claim 1, wherein the excitation
2 energy source supplies energy having a microwave frequency to
3 generate a plasma from [a] the nitrogen gas.

1 4. (Amended) The apparatus of claim 1, wherein [the first
2 reaction chamber is adapted to generate a nitrogen plasma, and]
3 the dimensions of the first reaction chamber are configured such
4 that substantially all of the ions generated by the nitrogen
5 plasma are changed from an ionic state to a charge neutral state
6 within the first reaction chamber.

1 6. (Amended) An apparatus for exposing a substrate to plasma,
2 comprising:

3 a first reaction chamber;

4 means for supplying a nitrogen gas to the first reaction

5 chamber[, the gas comprising constituents adapted to react with a
6 substrate in a process step];

7 means for [supplying a] generating a plasma from the nitrogen
8 gas, the plasma comprising ions and radicals [to the first
9 reaction chamber];

10 a second reaction chamber having means for housing a
11 substrate; and

12 means for providing the plasma to the second reaction chamber
13 substantially free of ions such that the radicals react with a
14 substrate in a process conversion step.

1 17. (Amended) A system for reacting a plasma with a substrate,
2 comprising:

3 a first chamber;

4 a gas source coupled to the first chamber comprising
5 constituents adapted to react with a substrate;

6 an energy source coupled to the first chamber;

7 a second chamber configured to house a substrate for
8 processing;

9 a system controller configured to control the introduction of
10 a gas from the gas source into the first chamber and to control
11 the introduction of an energy from the energy source; and

12 a memory coupled to the controller comprising a computer-
13 readable medium having a computer-readable program embodied
14 therein for directing operation of the system, the computer-
15 readable program comprising:

16 instructions for controlling the gas source and the energy
17 source to convert a portion of a gas supplied by the gas source
18 into a plasma comprising plasma ions and radicals and to deliver
19 the plasma to the second chamber substantially free of ions to